XP-002097496

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PR - JP930063515 930226; JP960217949 930226
TI - Recombinant prodn. of nucleoside phosphorylase - and use of the enzyme for the prodn. of nucleoside
IW - RECOMBINATION PRODUCE NUCLEOSIDE PHOSPHORYLASE ENZYME PRODUCE NUCLEOSIDE
PA - (YAMS) YAMASA SHOYU KK
PN - JP6253854 A 940913 DW9441 C12N15/54 019pp
- JP9019293 A 970121 DW9713 C12N15/09 016pp
ORD - 1994-09-13
IC - C07H21/04 ; C07K14/32 ; C12N1/21 ; C12N9/10 ; C12N9/12 ; C12N15/09 ; C12N15/54 ; C12P19/38
FS - CPI
DC - B04 D16
AB - J06253854 A nucleoside phosphorylase is claimed, encoded in a structural gene originating from a thermophilic bacteria belonging to the Bacillus genera.
- USE - The enzyme can be used for prodn. of nucleosides.
- In an example, Bacillus stearothermophilus TH6-2 was used as the source for the nucleoside phosphorylase. Three kinds of vectors for high expression of purine nucleoside phosphorylase (pTrc-punA), pyrimidine nucleoside phosphorylase (pTrc-pyn) and purine and pyrimidine nucleoside phosphorylase (pTrc-NE) were prepd. In order to prepare pTrc-punA, plasmid vector pTc99A (Gene, 69, 301 (1988), Pharmacia) was treated with NcoI and SmaI. A NcoI-HpaI DNA fragment contg. the purine nucleoside phosphorylase structural gene and SD sequence was ligated with the above cleavage fragment of pTrc99A to produce a construct comprising the SD sequence and nucleoside phosphorylase structural gene just after trc promoter for expression of pTc99A. E.coli JM 105 was transformed with the above ligation mixture. E.coli retaining each of the above vectors were cultured and then treated with lysozyme to obtain the phosphorylases.